

## Product Brief

Intel® Server Systems  
SR1600UR, SR1625UR,  
SR2600UR, SR2612UR,  
and SR2625UR

# Intel® Server System SR1600 and SR2600 Family

Rack-Optimized, Highly Integrated Server Systems  
for High-Density, Energy-Efficient Applications

### Key Features

- Supports up to two Intel® Xeon® Processor 5500 series on Intel® Microarchitecture, codenamed Nehalem
- Highly scalable DDR3 memory (12 DIMMs)
- High-speed PCI Express\* 2.0 I/O (up to 5 slots)
- Business-critical RAS
- Optimized for energy efficiency
- Supports Server Power Capping via Intel® Intelligent Power Node Manager

**Target Applications:** *High-performance computing (compute, I/O and management nodes), video server, virtualization platform and general purpose data center building blocks*



## Server Board Features and Benefits

- **Supports up to two Intel® Xeon® Processors on Intel® Microarchitecture, codenamed Nehalem** Increase server performance with no increase in power consumption
- **Highly scalable, energy-efficient memory** 12 DIMMs of registered or unbuffered DDR3 ensure ample capacity and energy-efficient performance for any application
- **Highly expandable I/O architecture** 24 lanes of fast PCI Express\* 2.0 x16 combined with PCI Express\* 2.0 x8 expansion modules and optional PCI-X slots provide unmatched expansion flexibility<sup>1</sup>

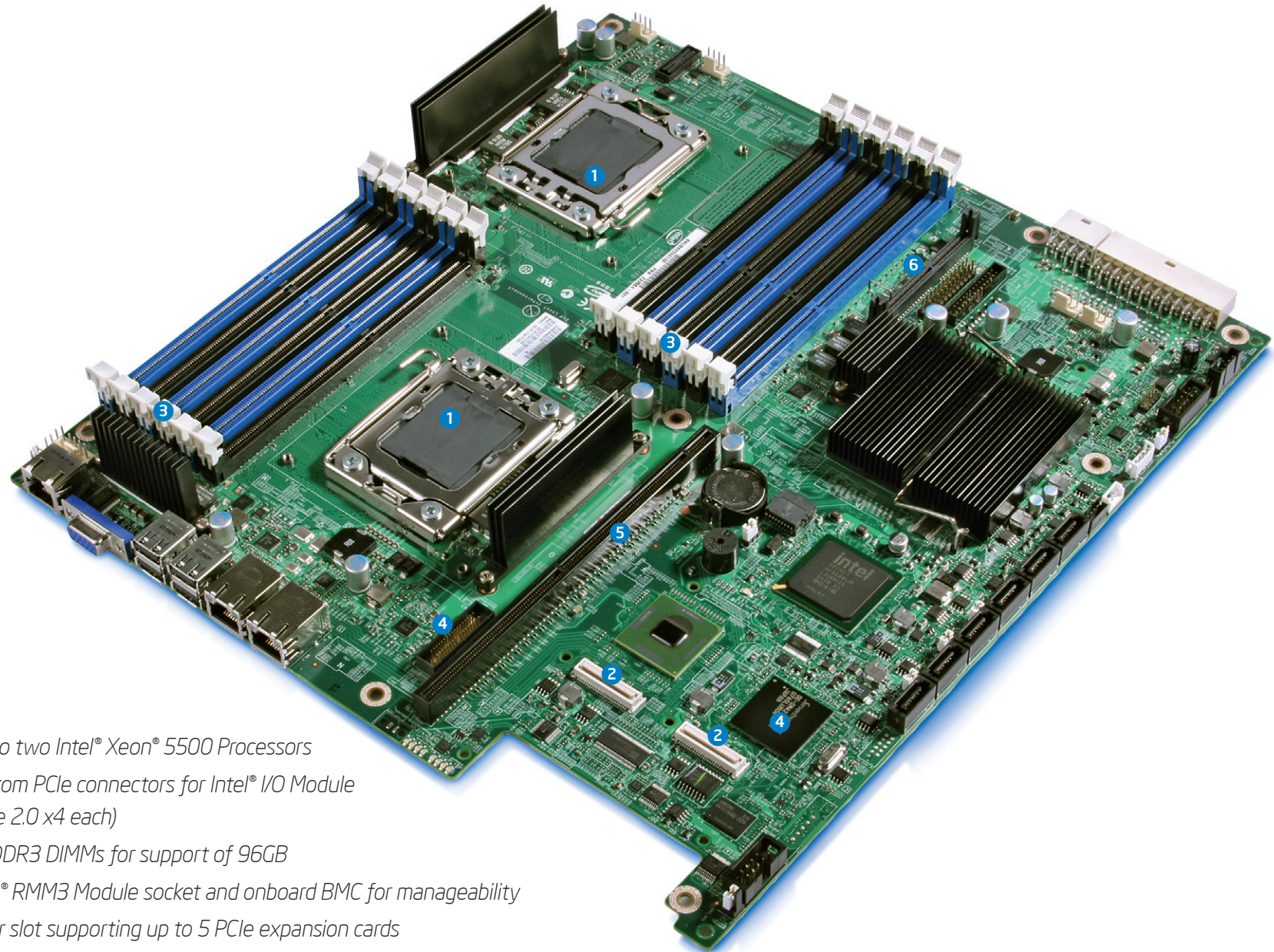
## Server System Features and Benefits

- **Highly flexible storage options** Hard disk configurations range from three fixed SATA drives to a ten-drive combination of eight hot-swap, two fixed SATA or SAS drives, providing optimum flexibility and scalability
- **Power efficient architecture with highly efficient power supplies** Reduced power and cooling requirements, lower operating costs
- **Server Power Capping via Intel® Intelligent Power Node Manager** Reduce power and cooling costs while increasing rack density with policy-based power and thermal management
- **Intel® Enabled Server Acceleration Alliance (Intel® ESAA) Certified** Pre-tested and certified configuration guides ("recipes") over a range of applications
- **Intel® System Management Software** Get your Intel® servers up and running with Intel® Deployment Toolkit and maintain them with the provided Intel® Active System Console, a lightweight management solution for small business or with the optional full IT management solution using Intel® Management Packs with Microsoft\* System Center Essentials





## Intel® Server Board S5520UR



- 1 Up to two Intel® Xeon® 5500 Processors
- 2 Custom PCIe connectors for Intel® I/O Module (PCIe 2.0 x4 each)
- 3 12 DDR3 DIMMs for support of 96GB
- 4 Intel® RMM3 Module socket and onboard BMC for manageability
- 5 Riser slot supporting up to 5 PCIe expansion cards
- 6 Bridge-board connector, supporting Midplane2 with SAS HW RAID

## Intel® Server Board S5520UR Technical Specifications

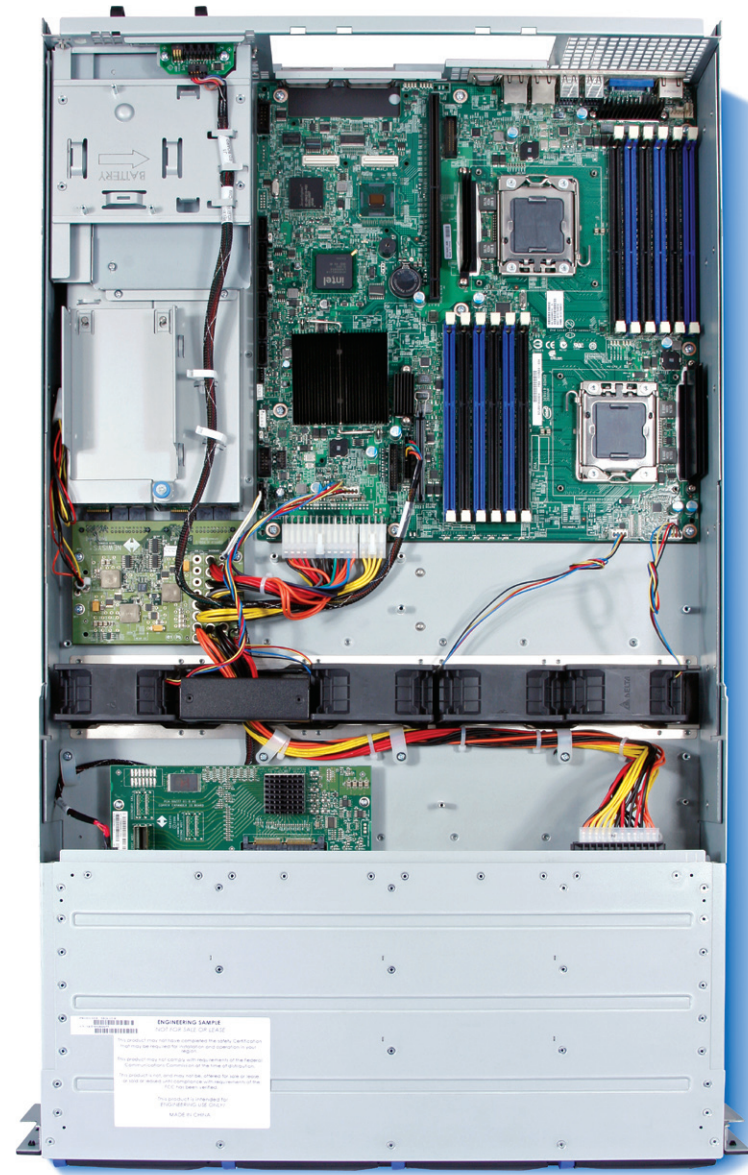
<b>Form Factor</b>	SSI EEB-leveraged (12" x 13")	<b>Optional Intel® I/O Expansion Modules</b>	<ul style="list-style-type: none"> <li>▪ Dual Gigabit Ethernet based on Intel® 82571EB</li> <li>▪ 4 port external SAS (based on LSI* 1064e)</li> <li>▪ Single port InfiniBand* (Mellanox* SDR)</li> <li>▪ Dual-port 10 Gigabit Ethernet based on Intel® 82598EB</li> <li>▪ Quad-port Gigabit Ethernet based on Intel® 82576EB</li> <li>▪ Single port InfiniBand (based on Mellanox* QDR)</li> <li>▪ Internal SAS and SAS RAID (see Intel® RAID Support)</li> </ul>
<b>Processors</b>	Supports up to two Intel® Xeon® Processor 5500 series on Intel® Microarchitecture, codenamed Nehalem	<b>Integrated Graphics</b>	Onboard Server Engine* LLC Pilot II* Controller with 64 MB DDR2 memory, 8MB allocated to graphics
<b>Chipset</b>	Intel® 5520 chipset with Intel® ICH10R	<b>Management Hardware</b>	Integrated IPMI 2.0 baseboard management controller <ul style="list-style-type: none"> <li>▪ Fan speed control</li> <li>▪ Diagnostic LEDs</li> <li>▪ Temperature monitoring and recovery</li> <li>▪ SMASH CLP (command line interface)</li> <li>▪ Email alerting</li> <li>▪ Power management with Intel® Intelligent Power Node Manager</li> </ul> Optional Intel® Remote Management Module (RMM3) <ul style="list-style-type: none"> <li>▪ KVM &amp; Virtual Media redirection</li> <li>▪ Dedicated 3rd NIC</li> <li>▪ Remote Power on/off</li> <li>▪ Embedded Web UI</li> <li>▪ Event log and configuration</li> </ul>
<b>Intel® Quick Path Technology</b>	4.8GT/s, 5.86GT/s and 6.4GT/s	<b>Management Software</b>	Intel® Deployment Assistant 3.0 <ul style="list-style-type: none"> <li>▪ Wizard based UI to deploy, configure and update server</li> <li>▪ BIOS, BMC and RAID array configuration</li> <li>▪ Unattended OS install</li> <li>▪ Online patch updates</li> </ul> Intel® Server Management Software 3.X <ul style="list-style-type: none"> <li>▪ View critical or warning events</li> <li>▪ Power on/off/reset</li> <li>▪ View sensor (fan speeds, temperature, power)</li> <li>▪ Full IPMI 2.0 interface</li> <li>▪ Chassis Intrusion detection</li> <li>▪ Serial Over LAN (Text Console Redirection)</li> </ul>
<b>Memory Capacity</b>	Twelve DDR3 DIMM sockets (Registered or Unbuffered) <ul style="list-style-type: none"> <li>▪ Six channel native (800/1066/1333 MHz)</li> </ul>		
<b>Memory RAS Features</b>	Channel-Independent Mode Channel-Mirroring Mode Demand Scrubbing Mode Patrol Scrubbing Mode		
<b>Storage</b>	Six SATA ports (3 Gbps) via ICH10R with Intel® Embedded Server RAID Technology Modular SAS RAID solution via Intel® I/O expansion module options		
<b>Intel® RAID Support</b>	Integrated <ul style="list-style-type: none"> <li>▪ Intel® Embedded Server RAID Technology with host-based SW RAID levels 0/1/10; Optional SW RAID 5 with activation key</li> </ul> Optional <ul style="list-style-type: none"> <li>▪ Intel® SAS Module AXX4SASMOD with SAS and RAID 0, 1, 1E, 10, 5 and Intel® RAID Module SROMBSASMR with RAID 0, 1, 5, 6, 10, 50 and 60 offer value above a traditional add-in card.</li> <li>▪ Validated Intel® RAID Controllers<sup>2</sup></li> </ul>		
<b>Integrated LAN</b>	Embedded Intel® Dual Gigabit Controller 82575EB with Intel® Virtualization Technology <sup>3</sup>		
<b>Expansion Slots</b>	Up to 5 PCI Express 2.0 with 2U riser PLUS two proprietary expansion connectors <ul style="list-style-type: none"> <li>▪ 1U: 1 PCI Express 2.0 x16 bus speed (x16 mechanical via riser)</li> <li>▪ 2U: 3 or 5 PCI Express 2.0 x8 bus speed, or 3 PCI Express 2.0 x8 bus speed connectors plus two PCI-X 133 connectors</li> <li>▪ Common:               <ul style="list-style-type: none"> <li>• 1 PCI Express 2.0 x8 bus speed via Intel® I/O Expansion Module</li> <li>• 1 PCI Express 1.0 x4 bus speed via Bridgeboard connector to storage controller (HW SAS RAID controller on midplane/backplane)</li> </ul> </li> </ul>		



## Intel® Server System SR2612UR Technical Specifications

<b>Order Code</b>	SR2612UR
<b>Form Factor</b>	2U Rack
<b>Drive Bays</b>	Up to 12 x Hot Swap 3.5" SAS or SATA HDDs
<b>Optical Bay</b>	One slim-line SATA optical drive bay
<b>System cooling</b>	4 Non redundant fans
<b>Power Supply</b>	2 high efficiency 760-watt power supply modules supporting redundant 1+ 1 power configurations
<b>Add-in card Support</b>	<ul style="list-style-type: none"> <li>▪ Up to 3 full-height PCI Express 2.0 x8</li> <li>▪ 1 Intel® I/O Expansion Module</li> <li>▪ Optional riser: 2 x low-profile PCI Express 2.0 x8</li> </ul>
<b>Dimensions</b>	3.44" (87mm) x 17.23" (438mm) x 30.75" (781mm)
<b>Front Panel Features</b>	<ul style="list-style-type: none"> <li>▪ Power LED</li> <li>▪ Hard Drive Activity LED</li> <li>▪ System status LED</li> <li>▪ System ID LED</li> </ul>
<b>Components Included</b>	<ul style="list-style-type: none"> <li>▪ Intel® Server Board S5520UR</li> <li>▪ Intel® Server Chassis SR2612</li> <li>▪ 12 hot swap HDD carriers</li> <li>▪ Two 760 Watt Power Supply</li> <li>▪ 4 fans</li> <li>▪ One full height PCI Express*</li> <li>▪ 2.0 riser card (3 PCIe 2.0 x8 slots)</li> <li>▪ ODD tray</li> <li>▪ Pre-routed cables</li> <li>▪ Expander midplane</li> <li>▪ 2 CPU Heatsinks</li> <li>▪ Rack Bracket</li> <li>▪ RAID cable</li> </ul>

The Intel® Server System SR2612UR is perfect for use in server applications with large storage needs. The SR2612UR is a great building block for use as SAN, NAS, dense Application Server, or a platform for Virtualization with support for a broad range of business applications from industry-leading software vendors. Support for up to two high-performance Intel® Xeon® processors, twelve SAS or SATA hard drives, and flexible network connectivity provides room for capacity growth and efficient application processing.



## Intel® Server Systems SR1600UR, SR1625UR Specifications

Configuration	Fixed	SAS	SATA	SAS
Order Code	SR1600UR	SR1600URHS	SR1625UR	SR1625URSAS
<b>Form Factor</b>	1U Rack	1U Rack	1U Rack	1U Rack
<b>Drive Bays</b>	Three Fixed 3.5" SATA HDDs	Three Hot Swap 3.5" SAS/SATA HDDs	Up to eight Hot Swap 2.5" SATA HDDs	Up to eight Hot Swap 2.5" SAS/SATA HDDs
<b>Optical Bay</b>	One slim SATA optical drive bay	One slim SATA optical drive bay	One slim SATA optical drive bay	One slim SATA optical drive bay
<b>System Cooling</b>	5 Non redundant dual-rotor fans	5 Non redundant dual-rotor fans	5 Non redundant dual-rotor fans	5 Non redundant dual-rotor fans
<b>Power Supply</b>	600-watt high efficiency fixed	600-watt high efficiency fixed	650-watt 1+0 high efficiency, hot swap, redundant capable	650-watt 1+0 high efficiency, hot swap, redundant capable
<b>Add-in card support</b>	1 full-height (PCI Express 2.0 x16) 1 Intel® I/O Expansion Module (PCI Express 2.0 x8)	1 full-height (PCI Express 2.0 x16) 1 Intel® I/O Expansion Module (PCI Express 2.0 x8)	1 full-height (PCI Express 2.0 x16) 1 Intel® I/O Expansion Module (PCI Express 2.0 x8)	1 full-height (PCI Express 2.0 x16) 1 Intel® I/O Expansion Module (PCI Express 2.0 x8)
<b>Dimensions (H x W x D)</b>	1.7" (43.3mm) x 16.9" (430mm) x 27.19" (690.6mm)	1.7" (43.3mm) x 16.9" (430mm) x 27.19" (690.6mm)	1.7" (43.3mm) x 16.9" (430mm) x 27.19" (690.6mm)	1.7" (43.3mm) x 16.9" (430mm) x 27.19" (690.6mm)
<b>Front Panel Features (optional front panels available)</b>	Power LED Hard Drive Activity LED System status LED 2 NIC LEDs System ID LED Power/sleep switch Reset switch NMI switch Bootable USB 1.1 port	Power LED Hard Drive Activity LED System status LED Power/sleep switch 2 NIC LEDs Reset switch NMI switch System ID LED VGA port Bootable USB 1.1 port	Power LED System status LED System ID LED Power/sleep switch NMI switch System ID switch Bootable USB 1.1 connection	Power LED System status LED System ID LED Power/sleep switch NMI switch System ID switch Bootable USB 1.1 connection
<b>Components Included</b>	Intel® Server Board S5520UR Cabled front panel Intel® Server Chassis SR1600 3 fixed HDD sleds 600-Watt Power Supply 5 fans One full height PCI Express* 2.0 x16 riser ODD tray Fan Board Pre-routed cables Memory blanks 2 CPU Heatsinks	Intel® Server Board S5520UR Standard front panel Intel® Server Chassis SR1600 3 hot swap HDD carriers 600-Watt Power Supply 5 fans One full height PCI Express* 2.0 x16 riser ODD tray Pre-routed cables Memory blanks 2 CPU Heatsinks * requires BackPlane	Intel® Server Board S5520UR Mini front panel Intel® Server Chassis SR1625 6 hot swap HDD carriers One 650 Watt Power Supply 5 fans One full height PCI Express* 2.0 x16 riser ODD tray Pre-routed cables Passive midplane Memory blanks 2 CPU Heatsinks	Intel® Server Board S5520UR Mini front panel Intel® Server Chassis SR1625 6 hot swap HDD carriers One 650 Watt Power Supply 5 fans One full height PCI Express* 2.0 x16 riser ODD tray Pre-routed cables Active SAS midplane (with optional HW RAID support) Memory blanks 2 CPU Heatsinks

## Intel® Server Systems SR2600UR, SR2625UR Specifications

Configuration	BRP	LX	BRP	LX
Order Code	SR2600URBRP	SR2600URLX	SR2625URBRP	SR2625URLX
<b>Form Factor</b>	2U Rack	2U Rack	2U Rack	2U Rack
<b>Drive Bays</b>	Up to six Hot Swap 3.5" SATA HDDs One 3.5 tape drive	Up to six Hot Swap 3.5" SAS/SATA HDDs One 3.5 tape drive	Eight Hot Swap 2.5" SATA HDDs	Eight Hot Swap 2.5" SAS/SATA HDDs
<b>Optical Bay</b>	One slim SATA optical drive bay	One slim SATA optical drive bay	One slim SATA optical drive bay	One slim SATA optical drive bay
<b>System Cooling</b>	3 Non redundant fans	6 Redundant & hot swap fans	3 Non redundant fans	6 Redundant & hot swap fans
<b>Power Supply</b>	750-watt 1+0 high efficiency, hot swap, redundant capable	750-watt 1+0 high efficiency, hot swap, redundant capable	750-watt 1+0 high efficiency, hot swap, redundant capable	750-watt 1+0 high efficiency, hot swap, redundant capable
<b>Add-in card support</b>	Up to 3 full-height PCI Express 2.0 x8 or up to 2 full-height PCI-X 133 Up to 2 low-profile (PCI Express 2.0) 1 Intel® I/O Expansion Module (PCI Express 2.0 x8)	Up to 3 full-height PCI Express 2.0 x8 or up to 2 full-height PCI-X 133 Up to 2 low-profile (PCI Express 2.0) 1 Intel® I/O Expansion Module (PCI Express 2.0 x8)	Up to 3 full-height PCI Express 2.0 x8 or up to 2 full-height PCI-X 133 Up to 2 low-profile (PCI Express 2.0) 1 Intel® I/O Expansion Module (PCI Express 2.0 x8)	Up to 3 full-height PCI Express 2.0 x8 or up to 2 full-height PCI-X 133 Up to 2 low-profile (PCI Express 2.0) 1 Intel® I/O Expansion Module (PCI Express 2.0 x8)
<b>Dimensions (H x W x D)</b>	3.4" (87.3mm) x 16.9" (430mm) x 27.75" (704.86mm)	3.4" (87.3mm) x 16.9" (430mm) x 27.75" (704.86mm)	3.4" (87.3mm) x 16.9" (430mm) x 27.75" (704.86mm)	3.4" (87.3mm) x 16.9" (430mm) x 27.75" (704.86mm)
<b>Front Panel Features (optional front panels available)</b>	Power LED Hard Drive Activity LED System status LED Power/sleep switch 2 NIC LEDs Reset switch NMI switch System ID LED VGA port Bootable USB 1.1 port	Power LED Hard Drive Activity LED System status LED Power/sleep switch 2 NIC LEDs Reset switch NMI switch System ID LED VGA port Bootable USB 1.1 port	Power LED Hard Drive Activity LED System status LED Power/sleep switch 2 NIC LEDs Reset switch NMI switch System ID LED VGA port Bootable USB 1.1 port	Power LED Hard Drive Activity LED System status LED Power/sleep switch 2 NIC LEDs Reset switch NMI switch System ID LED VGA port Bootable USB 1.1 port
<b>Components Included</b>	Intel® Server Board S5520UR Standard front panel Intel® Server Chassis SR2600 5 hot swap HDD carriers One 750 Watt Power Supply 3 fans One full height PCI Express* 2.0 riser card (3 PCIe 2.0 x8 slots) ODD tray Pre-routed cables Passive midplane Memory blanks 2 CPU Heatsinks	Intel® Server Board S5520UR Standard front panel Intel® Server Chassis SR2600 5 hot swap HDD carriers One 750 Watt Power Supply 6 fans One full height+low profile PCI Express* 2.0 riser card (5 PCIe 2.0 x8 slots) ODD tray Pre-routed cables Active SAS midplane (with optional HW RAID support) Memory blanks 2 CPU Heatsinks	Intel® Server Board S5520UR Standard front panel Intel® Server Chassis SR2625 6 hot swap HDD carriers One 750 Watt Power Supply 3 fans One full height PCI Express* 2.0 riser card (3 PCIe 2.0 x8 slots) ODD tray Pre-routed cables Passive midplane Memory blanks 2 CPU Heatsinks	Intel® Server Board S5520UR Standard front panel Intel® Server Chassis SR2625 6 hot swap HDD carriers One 750 Watt Power Supply 6 fans One full height+low profile PCI Express* 2.0 riser card (up to 5 PCIe 2.0 x8 slots) ODD tray Pre-routed cables Active SAS midplane (with optional HW RAID support) Memory blanks 2 CPU Heatsinks

### Safety and EMC Regulatory Compliance

Regulatory compliance for an Intel host system is based on the use of an Intel server base board that was tested in the host chassis and found compliant. Intel server base boards and host chassis are tested to Class A EMC requirements. Intel server products comply with RoHS (Restriction of Hazardous Substances).

Region (Compliance Obtained)	Board Markings	Host Chassis Markings
Argentina (IRAM)	Regulation N/A	
Australia (ACA) / New Zealand (MED)		
Belarus	Regulation N/A	
Canada		
	ICES-003	
China	Regulation N/A	
Europe (EU Directives) - LVD & EMC require CE mark; No mark required for RoHS; WEEE marking added voluntarily for end integrator convenience)		
Germany GS for Chassis Only; German Green Dot (Duales System Deutschland) for Board Packaging Only		
International Compliance (CB Report & CISPR Emission & Immunity)	Marking Not Required	
Japan (VCCI for chassis only) & Japan Recycling Marks on Board Retail Packaging Only	Regulation N/A	
		Marking Not Required
Korea (KCC)		
Russia (GOSSTANDART)	Regulation N/A	
Taiwan (BSMI)		
Ukraine (UKRTEST)	Regulation N/A	Marking Not Required
United States NRTL & FCC (For Board Products FCC Notation May Be in Documentation)		
	This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation	

To build your system and get more details on server configurations from Intel visit:

[www.intel.com/go/serverconfigurator](http://www.intel.com/go/serverconfigurator)

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## Build an Eco-Smart IT Environment with Intel® Server Products






<sup>1</sup> Configuration available on Intel Server Systems SR2600UR and SR2625UR

<sup>2</sup> For tested Intel® RAID Controller options go to [http://support.intel.com/support/motherboards/server/compat\\_matrix.html](http://support.intel.com/support/motherboards/server/compat_matrix.html)

<sup>3</sup> Intel® Virtualization Technology requires a computer system with an enabled Intel® processor, BIOS, virtual machine monitor (VMM) and, for some uses, certain computer system software enabled for it. Functionality, performance or other benefits will vary depending on hardware and software configurations and may require a BIOS update. Software applications may not be compatible with all operating systems. Please check with your application vendor.

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